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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,709	11/12/2003	Jin-Juh Hsu	JLINP175	9262
25920	7590	08/09/2005	EXAMINER	
MARTINE PENILLA & GENCARELLA, LLP 710 LAKEWAY DRIVE SUITE 200 SUNNYVALE, CA 94085			CAO, ALLEN T	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/712,709

Applicant(s)

HSU ET AL

Examiner

Allen T. Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 6 and 9 rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's admitted prior art (figures 1A-3A; specification, page 1, line 27 to page 2, line 16).

The admitted prior art discloses a centering device 10 of a spindle motor 1 having a rotor 7 and a shaft 2, the centering device having a body portion 10b which is disposed on the rotor 7 (figure 1B), and is provided with a central hole (figure 1B) for accommodating the shaft 2 of the spindle motor 1; and a plurality of centering elastic finger units (10a, figure 1A), located along the periphery of the body portion (figures 1A, 1B), each centering elastic finger unit comprising at least two elastic fingers (figure 1A shows that each finger unit 10a has 2 fingers), wherein each of said elastic fingers comprises a free end (figures 1A, 1B) which extends from the body portion in the circumferential direction of the rotor; and which has a contact portion (figure 2) adapted to urge against an optical disk 13 to guide the centering of the optical disk with respect to the shaft of the spindle motor, all as set forth in claim 1.

The admitted prior art discloses a centering device of a spindle motor 1a having a rotor 7, a shaft 2, and a disk supporting plate 14, the centering device having a body portion 16 which is disposed on the disk supporting plate 14 and is provided with a central hole for accommodating the shaft of the spindle motor (figure 3B); and a plurality

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of centering elastic finger units 15, located along the periphery of the body portion, each centering elastic finger unit comprising at least two elastic fingers (figure 3A), wherein each of said elastic fingers comprises a free end (figures 3A, 3B) which extends from the body portion in the circumferential direction of the rotor, and which has a contact portion (figure 3B) adapted to urge against an optical disk to guide the centering of the optical disk with respect to the shah of the spindle motor, all as set forth in claim 6.

Regarding claims 4 and 9, the admitted prior art discloses that the centering device and the rotor are separable.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art.

The admitted prior art discloses that the centering device and the rotor are separable.

The admitted prior art does not disclose that the centering device is integrally formed with the rotor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the centering apparatus of the admitted prior art such that the centering device is integrally formed with the rotor to reduce manufacturing time and

cost. One of ordinary skill in the art would recognized that there is no news or unobvious to make parts separate or integrally.

5. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Horng et al (US 2004/0205803 A1).

The admitted prior art does not clearly disclose that the contact portion is formed into an arc surface.

Horng et al discloses a disc centering device having a disc centering unit including fingers which has a contact portion to be formed into an arc surface (figures 3 and 6-7).

It would have been to manufacture the contact portion of the admitted prior art into an arc surface as taught by Horng et al to make contact with the rounded inner edge (arc) of the disk at a full contact length in spite of the thickness of the disk and to avoid any sliding movement of the disk with respect to device, thus the disk can be rotate synchronously with the rotation of the motor/rotor.

6. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Mukawa (US. 5,501,760).

The admitted prior art only discloses that the material for the body portion and the centering elastic fingers units is made of resin. The admitted prior art does not explicitly disclose that the material is selected from a group of polymer material, metal material, and composite material.

Mukawa discloses a centering device 11 having a body portion and finger units made of metal material (column 7, lines 27-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the body portion and finger units of the admitted prior art with a metal material as taught by Mukawa in order to improve an equal thrusting force, thus to enable stable rotation of the recording medium. Additionally, it has been held to be within the general skill of a worker in the art to select a known material having different chemical bonding structures on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416 (CCPA 1960).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen T. Cao whose telephone number is (571) 272-7569. The examiner can normally be reached on Mon - Thurs (7:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen Cao
Primary Examiner

AC
August 7, 2005